BRITISH COLUMBIA

REPORT ON THE OIL AND GAS COMPLIANCE REVIEW

March and April 2003

Prepared by the Oil and Gas Commission and the Ministry of Water, Land and Air Protection

CONTENTS

EXECUTIVE SUMMARY 3

1.0 DEFINITION OF NON-COMPLIANCE 5

2.0 METHODOLOGY 6

3.0 REVIEW RESULTS 7

RESULTS OF TARGETED ACTIVITIES 7

Stream Crossings 8

Sewage Disposal 9

Well sites 11

Special Waste 11

Water 12

Forestry 13

Gravel 13

4.0 CONCLUSIONS AND ACTION PLAN 14

5.0 UPATE OF ACTION PLANS FOR THE OIL AND GAS REVIEW 2001/2002 16

APPENDIX A. TEAM MEMBERS 21

APPENDIX B. SOUTH TEAM REPORT 22

APPENDIX C. MIDDLE TEAM REPORT 23

APPENDIX D. NORTH TEAM REPORT 24

BRITISH COLUMBIA

Report on the Oil & Gas Compliance Review March and April 2003

Prepared by the Oil and Gas Commission and the

Ministry of Water, Land and Air Protection

Executive Summary

North-eastern British Columbia has seen a significant increase in oil and gas activity in recent years. This increase has prompted concerns in the ministries and agencies involved about whether the oil and gas industry has maintained compliance with relevant legislation.

In 2000, several agencies entered discussions on this point: BC Environment (now the Ministry of Water, Land and Air Protection, or WLAP); the Oil and Gas Commission (OGC); the Ministry of Forests (MOF); the British Columbia Assets and Land Corporation (now Land and Water British Columbia Inc., or LWBC); and the Federal Department of Fisheries and Oceans (DFO). Following these discussions, a decision was made to conduct annual inter-agency compliance reviews.

These reviews, lasting approximately fourteen days and occurring in the first quarter of the calendar year, are intended to assess the oil and gas industry's compliance with federal and provincial legislation. The reviews are conducted by inter-agency teams consisting of representatives from the above-noted ministries and agencies. Each team includes a minimum of one WLAP conservation officer and one OGC inspector.

Although in 2003 there was a 15% decrease in the stream crossing compliance, the overall trend in industry compliance over the past three years continues to improve. The major compliance rate has increased from 79% major compliance in 2001 to 86% major compliance in 2003.

During the 2003 Compliance Review, teams conducted 434 compliance review inspections. The teams concentrated on four specific priority target activities:

- Stream crossings, works in and about a stream, snow/ice fills and ice bridges;
- Sewage management and disposal at campsites and drilling rig;
- Special wastes; and
- Water usage by camps, drilling rigs and seismic crews.

Most operations were found to be in major compliance with requirements:

- Special Waste 95%;
- Water Usage 97%; and
- Sewage management and disposal 83%.

Significant improvements from last year were noted for water usage (from 56% to 97% compliance with major requirements) and sewage management and disposal (from 62% to 83%). However, a decrease in compliance was identified for one activity:

- Stream Crossings 93% to 78%.

Identified Compliance Issues

Stream Crossings

In 2003 a focus was placed on inspecting stream crossings after March 31st, this was a new initiative not undertaken in previous audits. Without an approval extension, crossings were required to be removed by April 1st. The decrease in the 2003 compliance rates reflects the change in inspection methodology and the identification of the failure, in some instances, to remove crossings. A joint inspection of a small number of these sites (3) was made with DFO and no environmental damage was observed at those locations. The Oil and Gas Commission is working to develop a course of action to respond fully to these findings. The program of industry audit reviews will continue in 2003/2004, with a continued focus on stream crossing removal.

Water Usage

During the course of the audit an issue was identified dealing with intake screening. A discrepancy was noted in the wording of water permits, not all permits identified the need for screening of water intakes according to Fisheries and Oceans Canada, Freshwater Intake End-of Pipe Fish Screen Guidelines. Additionally, while all water users screen their pipe intakes, the audit of water usage did not include inspecting intake screens to ensure they met the Fisheries and Oceans standard.

Therefore, the reported compliance rate reflects the requirements to have and carry a copy of the permit, take water only from the approved source and stay within the volumes allowed. The Oil and Gas Commission is working to develop a course of action to respond fully to these findings. The program of industry audit reviews will continue in 2003/2004, with an additional focus on the requirement to have the appropriate intake screening.

In order for the Oil and Gas Commission to meet the new provincial strategies and standards, the commission will be implementing a new non-compliance format for the 2003/2004 audit year. Specifically, this format will add a fourth assessment level: "**Serious**". This will be the highest level of non-compliance and will be utilized where there has been a Major Non-Compliance combined with a demonstrated disregard for regulations or requirements, or with fraudulent activities.

With this change, the commission's four categories of inspection results will be consistent with those used in Alberta by the Alberta Energy and Utilities Board.

1.0 Definition of Non-Compliance

It is important to establish a clear distinction between Minor and Major Non-compliance. "Minor" Non-compliance consists of those issues that do not have an immediate or significant impact on the environment or on public health and safety. They may also be dealt with by instructions or through a compliance notice, rather than through formal enforcement actions. "Major" Non-compliance issues can have an immediate, significant impact on the environment or on public health and safety and which must be dealt with immediately. Table A provides further detail.

Table A:

Type #1 – Satisfactory		**Type #2 – Minor Non-Compliance**		**Type #3 – Major Non-Compliance**	**Type #4 – Serious Non-Compliance**
Inspected site complies with regulatory requirements		Inspected site does not comply with regulatory requirements but is not considered an immediate or significant impact on the environment or on public health and safety		Inspected site does not comply with regulatory requirements and is considered an immediate or significant threat to the environment or to public health and safety	Inspected site does not comply with regulatory requirements and is considered an immediate or significant threat to the environment or to public health and safety; there has also been either (a) demonstrated disregard for regulations or requirements, or (b) fraudulent activities
Make observation Comments	Identify any risk of Non Compliance	Identify trivial Non-Compliance	Identify minor Non-Compliance:	Identify major or significant Non-Compliance:	Identify Serious Non-Compliance
-Note good work. -Note any substandard action; clarify standards.	-Make comments and flag for future inspection if the site practice observed is likely to lead to non-compliance.	-Indicate concerns; indicate no action required if problem is small enough in scope that problem could be evaluated as transitory or insignificant.	-Indicate compliance concern; provide detail on form that evaluates problem to have minor severity or impact -Flag for future inspection -Problem may need assessment with senior staff for legal action or official warning.	-Provide detail to clarify severity and/or impact on inspection form: **forward information to senior staff for further legal determination of alleged non-compliance and obtain consensus and direction for action assessment to resolve problem*	-Provide detail to clarify severity and/or impact on inspection form, issue of Stop Work Order: **forward information to senior staff for further legal determination of alleged non-compliance and obtain consensus and direction for action assessment to resolve problem*

1.0 Definition of Non-Compliance

It is important to establish a clear distinction between Minor and Major Non-compliance. "Minor" Non-compliance consists of those issues that do not have an immediate or significant impact on the environment or on public health and safety. They may also be dealt with by instructions or through a compliance notice, rather than through formal enforcement actions. "Major" Non-compliance issues can have an immediate, significant impact on the environment or on public health and safety and which must be dealt with immediately. Table A provides further detail.

Table A:

Type #1 – Satisfactory		**Type #2 – Minor Non-Compliance**		**Type #3 – Major Non-Compliance**	**Type #4 – Serious Non-Compliance**
Inspected site complies with regulatory requirements		Inspected site does not comply with regulatory requirements but is not considered an immediate or significant impact on the environment or on public health and safety		Inspected site does not comply with regulatory requirements and is considered an immediate or significant threat to the environment or to public health and safety	Inspected site does not comply with regulatory requirements and is considered an immediate or significant threat to the environment or to public health and safety; there has also been either (a) demonstrated disregard for regulations or requirements, or (b) fraudulent activities
Make observation Comments	Identify any risk of Non Compliance	Identify trivial Non-Compliance	Identify minor Non-Compliance:	Identify major or significant Non-Compliance:	Identify Serious Non-Compliance
-Note good work -Note any substandard action, clarify standards.	-Make comments and flag for future inspection if the site practice observed is likely to lead to non-compliance.	-Indicate concerns, indicate no action required if problem is small enough in scope that problem could be evaluated as transitory or insignificant	-Indicate compliance concern, provide detail on form that evaluates problem to have minor severity or impact -Flag for future inspection -Problem may need assessment with senior staff for legal action or official warning.	-Provide detail to clarify severity and/or impact on inspection form: **forward information to senior staff for further legal determination of alleged non-compliance and obtain consensus and direction for action assessment to resolve problem*	-Provide detail to clarify severity and/or impact on inspection form, issue of Stop Work Order: **forward information to senior staff for further legal determination of alleged non-compliance and obtain consensus and direction for action assessment to resolve problem*

2.0 Methodology

The review teams were developed by a Steering Committee consisting of senior staff of the Oil and Gas Commission (Ben Mitchell-Banks, Director of the Compliance and Enforcement Branch), Ministry of Water, Land and Air Protection (Andy Ackerman, Environmental Stewardship Manager), and the Conservation Officer Service.

The review teams had a diversity of expertise from each Ministry or Agency. Each team had a captain who was responsible for logistics, safety, scheduling and co-ordination with the Steering Committee. The captains also attended planning and review meetings of the Steering Committee. Appendix A lists those involved in each team.

The teams were assigned specific areas to inspect, as follows:

South Team

- Ojay
- Sikanni River
- Horseshoe Creek
- Altares
- Sukunka
- Hiding Creek
- Noel

Middle Team

- Milligan
- Peejay
- Ladyfern
- Fontas
- Velma
- Dahl
- Inga
- Buick Creek
- Stoddart
- Wonowon
- Cypress
- Graham
- Bubbles
- Jedney
- Beg
- Halfway
- Tommy Lakes

North Team

- Milo
- Sierra
- Sahtaneh
- Hay River
- Prophet River
- Maxhamish Area
- Beaver River Rd
- Liard Crossing
- Mile Post 320 (Miduski Creek)
- Klua River
- Mid Winter
- North Helmet
- Clark Lake
- Thetlaandoa North

3.0 Review Results

Field activities were carried out between March 15 and April 15, 2003, with a total of 434 inspections. Significantly more inspections were made in 2003 compared to 2002. The review teams found the Major Compliance rate to range from a low of 78%, for activities related to Stream Crossings, to a high of 97%, for Water Usage related issues. Minor Compliance ranged from a low of 85% for Sewage management and disposal to a high of 97% for Special Waste. The review found 76% compliance with all of the requirements of the legislation pertaining to the targeted activities.

The average percentage of Major Non-Compliance was reduced. Table B and Table C provide an overview of the compliance rates for the various targeted activities inspected for each year's review.

Results of Targeted Activities

Table B:

Compliance Rates of Targeted Activities for 2003

Type	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
Stream Crossings	160	109	16	35	78
Sewage Disposal and/or Storage	125	85	19	21	83
Special Wastes	37	34	1	2	95
Water	112	104	5	3	97
Totals	**434**	**332**	**41**	**61**	**86**

Table C:

Compliance Rates of Targeted Activities for 2002

Type	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
Stream Crossings	43	34	6	3	93
Sewage Disposal and/or Storage	45	7	21	17	62
Well Sites	50	35	13	2	96
Special Wastes	4	1	3	0	100
Water	16	4	5	7	56
Forestry	26	15	10	1	96
Gravel	2	2	0	0	0
Totals	**186**	**98**	**58**	**30**	**84**

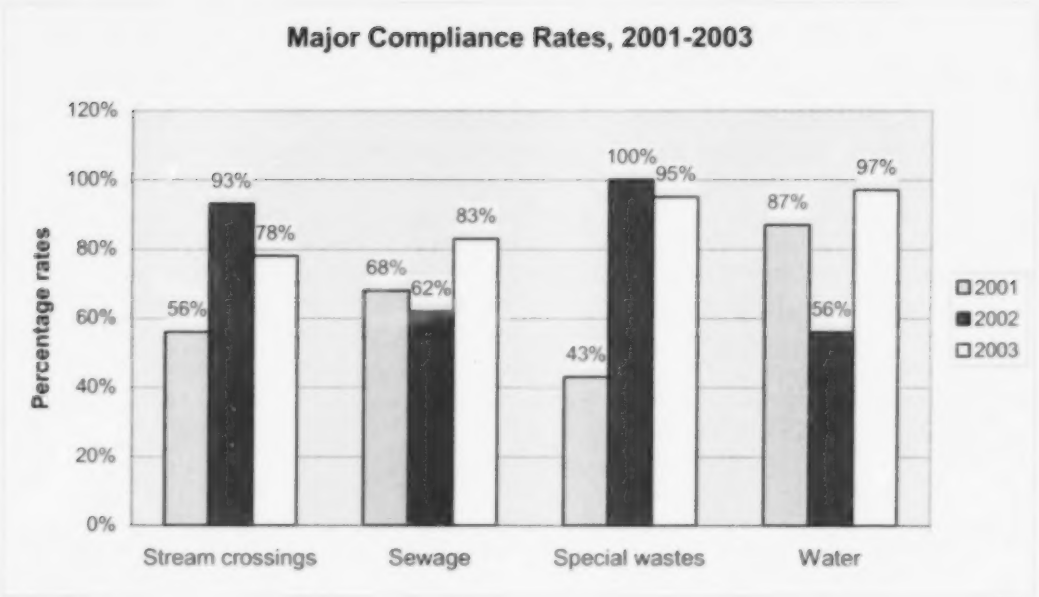

Diagram 1

There was a significant reduction in Major Non-Compliant inspections in the Water usage and Sewage management and disposal activities. There are notable Major Non-Compliant increases in Stream crossing activities.

Stream Crossings

Conclusions: There has been some increase in the stream crossing non-compliance rate for 2003. Non-compliance may involve the entrainment of mineral soils with snow used for snow fill construction or construction of a stream crossings using a method other than that specified in the approval. This year's audit also inspected crossings after March 31st to ensure their removal, this is a new initiative not undertaken in previous audits. The reduction in the compliance rate may be partially attributed to the late snow pack accumulations. Low snow packs often mean that there is insufficient natural snow available for snow fill construction, thus requiring the use of snowmaking equipment and clear span bridges. Continued attention to this matter is warranted.

2003

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	24	17	2	5	79
Middle	64	33	11	20	69
North	72	59	3	10	86
TOTALS	**160**	**109**	**16**	**35**	**78**

2002

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	11	8	3	0	100
Middle	12	10	2	0	100
North	20	15	2	3	85
TOTALS	**43**	**33**	**7**	**3**	**93**

Actions & Recommendations:

Government: A proactive approach to compliance will be maintained in 2004. An advisory letter will be sent to the exploration companies bringing the 2003 audit results to their attentions. Their assistance will again be requested to ensure company activities are conducted in compliance with project approval conditions.

The OGC Compliance and Enforcement (C&E) Branch will develop a risk-managed and performance-based audit system to administer, inspect, and where required correct industry stream crossing construction practices. A system will be implemented for the 2004 drilling season to document and monitor constructed stream crossings to ensure their removal prior to spring freshet.

The OGC C&E Branch is working with the Ministry of Forests through the Forest Continuing Studies Network and Canadian Association of Petroleum Producers (CAPP) to ensure that relevant change to Acts, Regulations and/or procedures is made available to the oil and gas industry. It is anticipated this will be available beginning in the spring of 2004. Further information is available at http://www.gov.bc.ca/for/.

Major non-compliant stream crossings will continue to be documented and referred to the Conservation Officer Service for enforcement action. Where appropriate, shut down orders and/or violation tickets will be issued. The non-compliance will form a part of the company's compliance history and will be used in the OGC's risk-managed and performance-based inspection/audit system.

Industry: Industry has to continue to take responsibility and be accountable to monitor their activities to ensure operations are in compliance with all applicable approval conditions and regulations. This would include requiring their contractors and construction personnel to be trained and aware of all regulatory requirements.

Industry must have contingency plans in place for years when low snow packs are encountered. This has been a persistent problem, and alternative stream crossing methods (such as temporary clear span, Bailey and native timber bridges) should be utilized when insufficient snow is available for snow fill crossings. Careful management is required to ensure all constructed crossings are removed prior to spring freshet.

Sewage Disposal

Conclusions: There was a 21% reduction in major non-compliance in 2003 as compared to 2002. This represents a marked improvement, but it is still a concern given that this issue was brought to industry's attention during the 2001 and 2002 audit. While conducting the 2003 audit, the Conservation Officer Service issued violation tickets to several companies.

2003

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	23	10	8	5	78
Middle	42	29	4	9	79
North	60	46	7	7	88
TOTALS	**125**	**85**	**19**	**21**	**83**

2002

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	9	1	6	2	78
Middle	12	3	5	4	67
North	24	3	10	11	54
TOTALS	**45**	**7**	**21**	**17**	**62**

Actions & Recommendations:

Government: A proactive approach to achieving compliance will be maintained in 2004. An advisory letter will be sent to the exploration companies bringing the 2003 audit results to their attentions. Their assistance will again be requested to ensure their company activities are conducted in compliance with project approval conditions.

The OGC C&E Branch will develop a risk-managed and performance-based audit system to inspect and administer industry sewage disposal. This will enable the OGC to focus resources on non-compliant areas and companies.

Major non-compliant sewage management and disposal will continue to be documented and referred to the Conservation Officer Service for enforcement action. Where appropriate, shut down orders and/or violation tickets will be issued. The non-compliance will form part of the company's compliance history and will be used in the OGC's risk-managed and performance-based inspection/audit system.

An 85% major compliance rate for sewage management and disposal was targeted for the 2003/04 drilling season; an 83% major compliance rate was achieved. Although this is a significant increase in major compliance (67% increase), the OGC C&E Branch and industry will strive to achieve 95% compliance.

Industry: Industry has to continue to take responsibility and be accountable to monitor their activities to ensure operations are in compliance with all applicable approval conditions and regulations. This would include requiring their contractors and construction personnel to be trained and aware of all regulatory requirements. Supervisors must be aware of their responsibility to inspect their camps and drilling rigs for compliance and take any remedial actions immediately.

Industry must have contingency plans in place for areas where soil conditions such as muskeg, gravel, and sandy soils do not allow for the building of sumps or trenches. Tanks and/or liners should be utilized under such ground conditions.

Well sites

Conclusions: Well sites were not included in the 2003 audit, but they will remain part of the OGC C&E Branch inspection system to ensure that industry is meeting all applicable approval conditions and regulations. In earlier years compliance rates were 100%.

Special Waste

Conclusions: There was a 95% major compliance rate in 2003. Major non-compliance observed included failing to register drilling operations that generated special waste and failing to manifest the transportation of special waste. The special wastes encountered during the 2003 audit were invert cuttings and hydrocarbon wastes from drilling operations.

2003

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	15	12	1	2	87
Middle	16	16	0	0	100
North	6	6	0	0	100
TOTALS	**37**	**34**	**1**	**2**	**95**

2002

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	3	1	2	0	100
Middle	1	0	1	0	100
North	0	0	0	0	N/A
TOTALS	**4**	**1**	**3**	**0**	**100**

Actions & Recommendations:

Government: The OGC is acquiring the capacity, authority and enforcement tools required to ensure compliance with the *Waste Management Act* and regulations. This will allow the OGC to incorporate compliance and enforcement measures into their inspection system when violations are encountered in the field.

Industry: Industry must continue to be proactive, take responsibility, and be accountable to monitor their activities to ensure operations are in compliance with special waste regulations. This will include requiring contractors and or drilling personnel to be properly trained. Supervisors must be aware they are responsible to monitor their operations for compliance and take remedial action when non-compliance is detected.

Water Usage

Conclusions:
There was a 97% major compliance rate in 2003 for inspected criteria. Non-compliance included not having a water permit on site; not carrying a copy of the water permit in the water hauling truck; exceeding the approved volume of the water permit; and not having a valid water permit.

During the course of the audit an issue was identified dealing with intake screening. A discrepancy was noted in the wording of water permits as not all permits identified the need for screening of water intakes according to Fisheries and Oceans Canada, Freshwater Intake End-of Pipe Fish Screen Guidelines. Additionally, while all water users screen their pipe intakes, the audit of water usage did not include inspecting intake screens to ensure they met the Fisheries and Oceans standard.

Therefore, the reported compliance rate reflects the requirements to have and carry a copy of the permit, take water only from the approved source, and stay within the volumes allowed. The Oil and Gas Commission is working to develop a course of action to address these findings. The program of industry audit reviews will continue in 2003/2004, with an additional focus on the requirement to have the appropriate intake screening.

2003

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	22	16	3	3	86
Middle	33	33	0	0	100
North	57	55	2	0	100
TOTALS	**112**	**104**	**5**	**3**	**97**

2002

Team	Total	Compliance	Minor Non-Compliance	Major Non-Compliance	% Major Compliance
South	4	2	2	0	100
Middle	3	0	2	1	67
North	9	2	1	6	33
TOTALS	**16**	**4**	**5**	**7**	**56**

Actions & Recommendations:

Government: A proactive approach to achieving compliance will be maintained in 2004. An advisory letter will be sent to the exploration companies bringing the 2003 audit results to their attentions, the issue of intake screening will be specifically identified and an information letter will be developed explaining the requirements. Company assistance will again be requested to ensure their activities are conducted in compliance with project approval conditions.

Where water users are found to be in non-compliance and a shut down order is to be issued, the circumstances will be documented and referred to the Conservation Officer Service for enforcement action. The non-

compliance will become part of the company's compliance history and will be used when determining future inspection frequencies.

The OGC, as the permit-issuing authority, is acquiring the enforcement tools and authorities to incorporate dealing with water permit infractions into the inspection system.

Industry: Industry has to continue to take responsibility and be accountable to monitor their activities to ensure operations are in compliance with all applicable approval conditions and regulations. This would include requiring their contractors, construction and exploration personnel to be trained and aware of all regulatory requirements.

Industry must also ensure that the water use permit is valid for the volumes of water actually required for rig servicing, winter road construction, snow fill or ice bridge construction. Industry commonly applies for 11,000 gallons a day, and this volume of water is not adequate for drilling a surface hole. The volume on the permit is a daily maximum, not an average over the lifetime of the permit.

Forestry

Conclusions: Forestry was not included in the 2003 audit, but it will remain part of the OGC C&E Branch inspection system to ensure that industry is meeting all applicable approval conditions and regulations.

Gravel

Conclusions: Gravel was not included in the 2003 audit, but it will remain part of the OGC C&E Branch inspection system to ensure that industry is meeting all applicable approval conditions and regulations.

4.0 Conclusions and Action Plan

In 2003 there were 434 inspections conducted, versus 186 in 2002 and 549 in 2001. The 2003 sample size is larger than in 2002, and with the 2001 sample provides an accurate snapshot of the overall trend in industry compliance.

Although there was a 15% decrease in the stream crossing compliance, the overall trend in industry compliance over the past three years continues to improve. The major compliance rate has increased from 79% major compliance in 2001, to 86% major compliance in 2003.

The following actions will contribute to further increases in compliance rates.

Action Plan:

4.1 Conduct another audit of industry during the 2004 drilling season. The audit should include an inspection cycle immediately prior to spring freshet to ensure stream crossings are fully removed.

4.2 Continue to develop and implement those recommendations not yet fully implemented from the 2001 audit. To be completed by spring 2004.

4.3 Continue a proactive approach to achieving compliance in 2004. Implement use of another advisory letter to be sent to exploration and development companies bringing the results of the 2003 audit to their attention and requesting their assistance to ensure company activities are conducted in accordance with all relevant legislation and project approval conditions. To be completed by December 20th, 2003.

4.4 Continue to highlight the audit findings during the upcoming inspections by OGC staff and urge companies to ensure operations are in compliance by conducting self-inspections. Ongoing including prior to and during the 2004 drilling season.

4.5 Assist in the development of a formal training course and certification for environmental monitors so that industry participants without the internal capacity could use environmental or compliance monitors to inspect activities and identify any non-compliance issues. Partners to be identified for this project prior to December 1st, 2003.

4.6 Continue to elevate enforcement responses to persistent offenders with action such as shut downs or prosecution on an ongoing basis.

4.7 Using risk managed and performance based inspection strategies introduce a greater inspection presence in area where non-compliance warrants closer attention. To be utilized during the drilling season of 2004.

4.8 In consultation with industry prepare a Stewardship Audit to assist industry in meeting their due-diligence requirements under a new results-based system. To be completed by September 1, 2004.

4.9 Continue work on the development of a risk-managed, performance-based inspection and audit system for the OGC C&E Branch to ensure effective and efficient use of staff resources. System to be completed for exploration and construction activities by September 1, 2004.

4.10 Continue to work with CAPP to highlight to industry the training available through the Forest Continuing Studies Network of the new Forest and Range Practices Act and Regulation. Currently awaiting finalization of the new legislation needed to produce course material.

4.11 Develop a way for the OGC C&E Branch to acknowledge companies that demonstrate good practices and superior compliance records to be completed by June 1st, 2004.

5.0 Update of Action Plans from the Oil and Gas Reviews of 2001 and 2002

ACTIONS FROM 2001 AUDIT	ACTION TO DATE	% COMPLETE
Review: There is currently a third inter-agency compliance review scheduled for March 2003. Funding will be provided by WLAP and the OGC for flying and certain other expenses.	A multi-agency audit was completed. Participants included WLAP and the OGC. 434 inspections were conducted.	100%
Education: The members of the Steering Committee will be conducting presentations and workshops for both industry and government on the review in the next couple of months.		100%
A series of presentations will be made to industry groups such as the Canadian Association of Drilling Contractors (CAODC), the North-eastern BC Producers, and the Canadian Association of Petroleum Producers (CAPP).	Presentations were made to industry groups to discuss the audit findings.	
An information letter will be prepared by OGC for the industry and will concentrate on the primary target areas of sewage disposal, water, and special waste management.	An information letter was prepared and posted to the OGC website, focusing on Sewage, Water use, Stream Crossings and Special Waste Management.	100%
Education and information booklets will be prepared using funding from WLAP and the OGC Environment Fund. We will also be consulting with CAPP to determine if they are prepared to partner in this exercise, as well as to find out if industry already has information booklets or handbooks that may be appropriate.	OGC is working with CAPP and the Forest Continuing Studies Network to develop training courses for the oil and gas industry.	40%
Interagency Workshops: As part of the 2002 review, an inter-agency briefing session was conducted for the review teams in early December of 2001. As well, briefings will also be given to WLAP, OGC, MOF and other agency staff soon after the report is released.	Interagency review of the draft report by WLAP, OGC and MOF was completed.	100%
Review of Guidelines and Legislation: This is currently underway by government.	Ongoing. The Oil and Gas Waste Regulation and *Forest and Range Practices Act* have been reviewed and implemented. Other legislation is currently under review or identified for review.	Not quantifiable, as extent of legislative change is not defined at this time.

ACTIONS FROM 2001 AUDIT (cont.)	ACTION TO DATE	% COMPLETE
Review forms and report formats: This is currently underway in conjunction with the planned 2002 review. The North Team report format will be used as it clearly distinguishes between minor and major compliance.	Forms were reviewed and adapted. Further changes to fine-tune the process will take place prior to the 2003 audit.	90%
Snow fills and Ice Crossings: Government agencies will be preparing guidelines for both industry and government compliance officers. We will consult the DFO in this initiative. Guidelines will include concern over mineral soils, sediments and large debris in these crossings, and the 2002 review will be paying particular attention to those areas identified in the 2001 review with emphasis on fish bearing streams or systems.	The review was completed by OGC, WLAP and DFO. An information letter was produced and posted to the OGC website. Snow fills may contain some small amounts of fine organic matter (grass). Fills may not contain mineral soil or large organic debris.	100%
Sewage disposal: This will be part of the inter-agency workshops	The sewage management issue was dealt with at the interagency workshop held prior to the 2002 audit. A specific strategy was developed for implementation in 2002.	100%
Compliance definitions: The chart contained on page 7 will be used in future compliance inspections. It provides a consistent set of guidelines for both industry and government.	Completed. The chart was used in the 2002 audit.	100%
Water Removal: The OGC work withWater Approvals Branch to include terms in the approvals specifying exactly what water sources can be used and requiring water haulers to carry a copy of the permit in their trucks. WLAP will provide the OGC with a list of borrow pits that have been stocked with fish and will include the exact locations. The OGC will be requested to exclude these pits from future approvals.	Permits state that a copy must be carried by the water hauler **and** must be on site. The list of stocked borrow pits has been provided and water permits will not be issued for these water sources.	100%

ACTIONS FROM THE 2002 AUDIT	ACTION TO DATE	% COMPLETE
A proactive approach to achieving compliance will be taken in 2003. An advisory letter will be sent to the exploring companies bringing the 2002 audit results to their attention. The non-compliance issues identified will be stream crossings, water usage, sewage management and special wastes. Their assistance will be requested to ensure their company's activities are conducted in compliance with project approval conditions. A signed-off document will be requested from the responsible company official confirming their stream crossings will be constructed and maintained in compliance with all applicable regulations.	An advisory letter was prepared and is being distributed to exploring and producing companies requesting they commit to compliance by way of signoff of the document.	100%
The OGC C& E Branch will develop a risk-managed and performance-based audit system to inspect, administer and correct industry construction and development activities. Resources will be focused on non-compliant areas.	Work is currently underway in the development of these risk-managed and performance-based inspection and regulatory models. Software will be utilized to manage the larger databases for pipelines and facilities.	95% for Pipelines and Facilities 25% for other areas
The OGC C&E Branch will work with the Ministry of Forests to ensure that the upcoming *Forest and Range Practices Act* training relevant to stream crossings is available to the oil and gas industry. It is anticipated this training will be available beginning in the spring of 2004. See http://www.gov.bc.ca/for/ for further information.	The OGC is represented on the MOF Standing Training Committee. The Committee is now aware of the need to provide training not only to the forestry sector but also to the oil and gas industry. Modules are currently under development with the first training scheduled for this spring of 2004.	30%
Industry has to take responsibility and be accountable to monitor their activities and ensure their operations are in compliance with all applicable approval conditions and regulations. This would include making sure contractors and construction personnel are appropriately trained and aware of all regulatory requirements. Companies and their Supervisors must be aware they are responsible to inspect their own projects for compliance and take immediate action when non-compliance is detected.	The Oil and Gas Commission C&E Branch will reinforce to industry that industry, not a regulatory agency, has the primary responsibility to monitor operations and take action when non-compliance is found. Due diligence will be one of the topics included in the MOF *Forest and Range Practices Act* and Regulations training.	25%

ACTIONS FROM THE 2002 AUDIT (cont.)	ACTION TO DATE	% COMPLETE
Results based rewards: The OGC will be issuing letters to companies that demonstrated good practices commending them for their superior compliance rates. In the future, as the industry moves to a results-based regime, consideration may be given to these companies resulting in streamlined approval processes and increased intervals between inspections. There will be a greater focus given to those companies that have demonstrated poor compliance practices.	Not yet initiated	0%
Special Waste: There are currently investigations underway as a result of the 2001 review. The 2002 and 2003 review will continue to give special waste a high priority. The OGC will carry out a project that will create a database for sites where special wastes resulting from drilling operations (invert cuttings) are stored. The database will contain information on those sites created prior to 1996. In that year, inverts became the permitting responsibility of WLAP. The sites will be evaluated to ensure they are not a threat to the environment, public health or safety. There will also be increased sharing of information between agencies pertaining to the transportation and disposal of special waste. A review is also underway to classify advanced drilling muds and their suitability for use in BC. This review will also look at the procedures for use, storage and disposal of these drilling wastes	The 2002 audit found no compliance issues around special waste. Information is currently being gathered to put a proposal before the Science and Community Environmental Knowledge fund. This year's fund priorities are: health and safety; environment and education; engineering and technology; ecosystem integrity; and cumulative impact management. A review is ongoing. Advanced muds will likely be included in a section of Guide 50, which is currently under review. Target is 2005.	75%
Increase in compliance staff: The OGC currently has a proposal to government to increase compliance staff by 40-50% in the next three years to enable them to effectively meet the demands of a rapidly expanding industry and activity level.	The Branch has transferred one inspector to Kamloops and is staffing one additional pipelines inspector and two operations inspectors in Fort St John; four Enforcement staff in Fort St John; and three additional inspectors in Fort Nelson.	80%

ACTIONS FROM THE 2002 AUDIT (cont.)	ACTION TO DATE	% COMPLETE
One-window delivery of compliance and enforcement: There is an inter-agency and industry group currently working on this initiative.	The OGC continues to work toward a one-window model. The C&E Branch estimates this initiative will be completed by 2005. The C&E Branch is working with MOF and WLAP on the OGC's acquiring compliance and enforcement responsibilities and abilities for regulations that affect the oil and gas industry.	75%
Results-based system: See recommendation 4.9. This may be part of the one-window model currently being worked on.	The Oil and Gas Commission is working toward development of risk-managed and performance-based regulatory models.	35%

Key contacts for this report are:

- Ben Mitchell-Banks, Director, Compliance and Enforcement Branch, 250-261-5767; and
- Keith Rande, Senior Conservation Officer, 250-787-3394.

APPENDIX A

TEAM MEMBERS

South Team

- Harry Offizier, OGC Operations Inspector
- Brad Lacey, WLAP Conservation Officer
- Egan Wuth, OGC Operations Inspector
- Jeff Ginter, WLAP Conservation Officer

Middle Team

- Bob Workman, WLAP Conservation Officer
- Cor de Boon, WLAP Conservation Officer
- Harry Offizer, OGC Operation inspector
- Rick Newlove, OGC Operations Inspector

North Team

- Jack Cann, OGC Ft. Nelson Operations Manager
- Michael Richardson, WLAP Conservation Officer
- Leanne Brown, WLAP Conservation Officer
- Egan Wuth, OGC Operations Inspector

APPENDIX B

SOUTH TEAM REPORT

South Team – April Report

Overview

The South Team audited Oil And Gas activities in an area west of the Alberta border and south of the Peace River. Participants were from the Conservation Officer Service and the Oil and Gas Commission.

A total of 84 inspections were made in the following areas: Red Willow, Sukunka, Ojay, Hiding Creek, Noel, Monias, Rolla, and Dawson Creek. Inspection sites were all ground-accessible.

The 84 inspections covered seismic, drilling, completion and geophysical operations. Problems with the sites were as follows:

Sewage:

- overflowing tanks
- sump in permeable soils
- lines not reaching pit
- sump fencing either down or loose

Creek/river crossings:

- no permits
- dirt/debris in the crossing material

Special wastes:

- no or improper manifesting

Water usage:

- no valid water permit on site
- water hauler without water permit
- removal of water from unapproved water source

Generally sites that had non-compliance concerns were immediately dealt with at the site. Concerns expressed to company representatives were addressed immediately with no remedial action taking more than 24 hours to complete. Good construction practices were in evidence throughout the audit. Where major non-compliance was found, a stop work order was issued by OGC inspectors and/or a violation ticket was issued by COS officers.

APPENDIX C

MIDDLE TEAM REPORT

Middle Team – April Report

Overview

The Middle Team audited oil and gas activities in an area north of the Peace River, east of the Prophet River and south of the Ring border area. Participants were from the Conservation Officer Service and the Oil and Gas Commission.

A total of 155 inspections were made in the following areas: Milligan Creek PT, Ladyfern, Ring border, Fontas, Velma, Buick Creek, Stoddart, Wonowon, Cypress Bubbles, Jedney, Halfway, Tommy Lakes, Adsett and Trutch. Inspection sites were all ground-accessible.

The 155 inspections covered seismic, drilling, completion and geophysical operations. Problems with the sites were:

Sewage:

- overflowing tanks
- sump in permeable soils
- lines not reaching pit
- sump fencing either down or loose

Creek/river crossings:

- no permits
- dirt/debris in the crossing material

Special wastes:

- no or improper manifesting

Water usage:

- no valid water permit on site
- water hauler without water permit
- removal of water from unapproved water source

Generally, sites that had non-compliance concerns were immediately dealt with at the site. Concerns expressed to company representatives were addressed immediately with no remedial action taking more than 24 hours to complete. Good construction practices were in evidence throughout the audit. Where major non-compliance was found, a stop work order was issued by OGC inspectors and/or a violation ticket was issued by COS officers.

APPENDIX D

NORTH TEAM REPORT

North Team – April Report

Overview

The North Team audited Oil And Gas activities in an area north of the Prophet River and south of the Helmet area. Participants were from the Conservation Officer Service and the Oil and Gas Commission.

A total of 195 inspections were made. Ground inspections covered the following areas: Milo, Sierra, Kyklo, Sahtaneh, Hay River, and Prophet River. Air inspection covered Milo, Maxhamish Area, Beaver River Road and Liard Crossing, Mile Post 320 (Miduski Creek), Klua River, Mid Winter, North Helmet, Hay River, Clark Lake, and Thetlaandoa North.

The 195 inspections covered seismic, drilling, completion and geophysical operations. Problems with the sites were:

Sewage:

- overflowing tanks
- sump in permeable soils
- lines not reaching pit
- sump fencing either down or loose

Creek/river crossings:

- no permits
- dirt/debris in the crossing material

Special wastes:

- no or improper manifesting

Water usage:

- no valid water permit on site
- water hauler without water permit
- removal of water from unapproved water source

Generally, sites that had non-compliance concerns were immediately dealt with at the site. Concerns expressed to company representatives were addressed immediately with no remedial action taking more than 24 hours to complete. Good construction practices were in evidence throughout the audit. Where major non-compliance was found, a stop work order was issued by OGC inspectors and/or a violation ticket was issued by COS officers.